WHAT IS CLAIMED IS:

1. Isolated biologically active human VEGF-related protein (VRP) containing at least 265 amino acids.

2. The protein of claim 1 containing 265 to about 450 amino acids.

3. The protein of claim 1 containing about 300-450 amino acids.

4. The protein of claim 1 containing about 350-450 amino acids.

5. The protein of claim 1 containing about 399-419 amino acids.

6. The protein of claim 1 comprising an amino acid sequence having at least residues +1 through 29, inclusive, of Figure 1.

7. The protein of claim 6 comprising an amino acid sequence having at least residues +1 through 137, inclusive, of Figure 1.

8. The protein of claim 6 comprising an amino acid sequence having at least residues -20 through 29, inclusive, of Figure 1.

9. The protein of claim 6 comprising an amino acid sequence having at least residues -20 through 137, inclusive, of Figure 1.

10. Isolated biologically active human VEGF-related protein (VRP) comprising an amino acid sequence comprising at least residues +1 through 29, inclusive, of Figure 1.

11. The protein of claim 10 comprising an amino acid sequence having at least residues +1 through 137, inclusive, of Figure 1.

12. The protein of claim 10 comprising an amino acid sequence having at least residues -20 through 29, inclusive, of Figure 1.

13. The protein of claim 10 comprising an amino acid sequence having at least residues -20 through 137, inclusive, of Figure 1.

14. Isolated biologically active human VEGF-related protein (VRP) comprising an amino acid sequence shown as residues -20 through 399, inclusive, or residues 1 through 399, inclusive, of Figure 1.

15. The protein of claim 14 wherein the sequence is shown as -20 through 399, inclusive, of Figure 1.

16. The protein of claim 14 wherein the sequence is shown as 1 through 399, inclusive, of Figure 1.

17. A composition comprising the protein of claim 1 and a pharmaceutically acceptable carrier.

18. A pharmaceutical composition useful for promotion of vascular endothelial cell growth comprising a therapeutically effective amount of the protein of claim 1 in a pharmaceutically acceptable carrier.

19. The composition of claim 18 further comprising a cell growth factor other than said protein.

20. A method for treating trauma affecting the vascular endothelium comprising administering to a mammal suffering from said trauma an effective amount of the composition of claim 18.

21. The method of claim 20 further comprising administering to said mammal an effective amount of a cell growth factor other than said protein.

22. A method for treating a dysfunctional state characterized by lack of activation or lack of inhibition of a receptor for VRP in a mammal comprising administering to the mammal an effective amount of the composition of claim 17.

23. A method for stimulating the phosphorylation of a tyrosine kinase domain of a Flt4 receptor comprising contacting an extracellular domain of the Flt4 receptor with the protein of claim 1.

24. A chimeric polypeptide comprising the protein of claim 1 fused to a tag polypeptide sequence.

25. A monoclonal antibody which binds to the protein of claim 1 and neutralizes a biological activity of the protein.

26. The antibody of claim 25 wherein the biological activity of the protein is promoting neovascularization or vascular permeability or vascular endothelial cell growth in a mammal.

27. A composition comprising the antibody of claim 25 and a pharmaceutically acceptable carrier.

28. A method of treating diseases or disorders characterized by undesirable excessive neovascularization or vascular permeability in a mammal comprising administering to said mammal an effective amount of the composition of claim 27.

29. A method for treating a dysfunctional state characterized by excessive activation or inhibition of a receptor for VRP in a mammal comprising administering to the mammal an effective amount of the composition of claim 27.

30. A monoclonal antibody which binds to the N-terminal portion from residues -20 through 137, inclusive, or from residues 1 through 137, inclusive, of the amino acid sequence shown in Figure 1.

31. A peptide consisting of an amino acid sequence shown as residues -20 through -1, inclusive, of Figure 1.

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